

PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
(day/month/year)

10.10.00

Applicant's or agent's file reference  
DCR P21155WO

IMPORTANT NOTIFICATION

International application No. PCT/GB99/03039	International filing date (day/month/year) 13/09/1999	Priority date (day/month/year) 11/09/1998
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Applicant  
DEN NORSKE STATS OLJESELSKAP AS et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DCR P21155WO	FOR FURTHER ACTION <span style="float: right;">See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)</span>	
International application No. PCT/GB99/03039	International filing date (day/month/year) 13/09/1999	Priority date (day/month/year) 11/09/1998
International Patent Classification (IPC) or national classification and IPC G01V1/28		
Applicant DEN NORSKE STATS OLJESELSKAP AS et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I    <input checked="" type="checkbox"/> Basis of the report</li> <li>II    <input type="checkbox"/> Priority</li> <li>III    <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV    <input type="checkbox"/> Lack of unity of invention</li> <li>V    <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI    <input type="checkbox"/> Certain documents cited</li> <li>VII    <input checked="" type="checkbox"/> Certain defects in the International application</li> <li>VIII    <input type="checkbox"/> Certain observations on the international application</li> </ul>		

Date of submission of the demand 27/03/2000	Date of completion of this report 10.00
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4485	Authorized officer Whittington, J Telephone No. +49 89 2399 2781



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB99/03039

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-18                  as originally filed

**Claims, No.:**

1-21                  as originally filed

**Drawings, sheets:**

1/2-2/2              as originally filed

2. The amendments have resulted in the cancellation of:

the description,        pages:  
 the claims,           Nos.:  
 the drawings,          sheets:

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims 4-7,9-21
	No:	Claims 1-3,8
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-21
Industrial applicability (IA)	Yes:	Claims 1-21
	No:	Claims

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB99/03039

**Section V:**

1). The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

- D1: US-A-5 724 309 (HIGGS WILLIAM G ET AL) 3 March 1998 (1998-03-03)
- D2: WO 97 33184 A (CHEVRON USA INC) 12 September 1997 (1997-09-12)
- D3: US-A-4 992 995 (FAVRET PAUL D) 12 February 1991 (1991-02-12)

2). Document D1, referring in particular to column 6, line 54 - column 7, line 3, describes the extraction of seismic attributes at constant stratigraphic level or constant time, as well as at a constant level in horizontal, vertical and oblique planes in order to glean extra information concerning dip and strike of an event. This document therefore appears to disclose the concept of this application, and indeed all the features of present claims 1-3 and 8.

2.1). The remaining subject-matter defined by claims 4-7 and 9-21 would, moreover, appear to be rendered obvious by the disclosure of D1 since, once the main concept/object of this application is disclosed by D1, the features of the remaining dependent claims would be routine for the skilled data processing engineer who has knowledge of D1. See also D1, column 13, lines 10-24, column 15, lines 50-58 and column 16, lines 12-23.

2.2). Document D2 is also pertinent to the features of claims 19 and 21, while document D3 is pertinent to the additional features of dependent claim 9.

**Section VII:**

i) To meet the requirements of Rule 5.1(a)(ii) PCT, the documents D1-D3 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB99/03039

- ii) To meet the requirements of Rule 6.3 (b) PCT the independent claims should be properly cast in the two-part form, with those features which in combination are known from the most relevant prior art (e.g. document D1) being placed in the preamble.